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Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims

1. (Original) A compound of the formula:

$$R_2$$
 H_2N
 O
 R_1
 R_4
 R_5

wherein R₁, R₂, R₄ and R₅ are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1 to 6 carbon atoms, -CN, -NH-SO₂-alkyl of 1-6 carbon atoms, -SO₂-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl.

- 2. (Original) A compound of Claim 1 wherein R_1 and R_2 are hydrogen, and R_4 and R_5 are as defined in Claim 1.
- 3. (Original) A compound of Claim 1 wherein R_1 , R_2 and R_4 are hydrogen, and R_5 is as defined in Claim 1.
- 4. (Original) A compound of Claim 1 which is 2-(2,3,3a,8b-Tetrahydro-1*H*-cyclopenta[*b*]indol-4-yl)-acetamide.

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5. (Original) A compound of the formula:

$$R_1$$
 R_1
 R_3
 R_5

wherein R₁, R₂, R₄ and R₅ are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1 to 6 carbon atoms, -CN, -NH-SO₂-alkyl of 1-6 carbon atoms, -SO₂-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl.

- 6. (Original) A compound of Claim 5 wherein R_1 and R_2 are hydrogen, and R_4 and R_5 are as defined in Claim 1.
- 7. (Original) A compound of Claim 5 wherein R_1 , R_2 and R_4 are hydrogen, and R_5 is as defined in Claim 1.
- 8. (Original) A compound of Claim 5 which is 2-(2,3,3a,8b-Tetrahydro-1*H*-cyclopenta[*b*]indol-4-yl)-acetonitrile.

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9. (Original) A compound of the formula:

$$R_2$$
 R_1
 R_4
 R_5

wherein R₁, R₂, R₄ and R₅ are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1 to 6 carbon atoms, -CN, -NH-SO₂-alkyl of 1-6 carbon atoms, -SO₂-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl.

- 10. (Currently amended) A compound of Claim $\frac{5}{9}$ wherein R_1 and R_2 are hydrogen, and R_4 and R_5 are as defined in Claim 1.
- 11. (Currently amended) A compound of Claim $5 \underline{9}$ wherein R_1 , R_2 and R_4 are hydrogen, and R_5 is as defined in Claim 1.
- 12. (Currently amended) A compound of Claim $5 \underline{9}$ which is 2-(2,3,3a,8b-Tetrahydro-1*H*-cyclopenta[*b*]indol-4-yl)- ethylamine.
 - 13. (Currently amended) A process for synthesis of a compound of the formula:

$$R_2$$
 R_3
 R_4
 R_5

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wherein R₁, R₂, [[R₃,]] R₄ and R₅ are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1 to 6 carbon atoms, -CN, -NH-SO₂-alkyl of 1-6 carbon atoms, -SO₂-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl;

R3 is hydrogen, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms,

fluorinated alkyl of from 1 to 6 carbon atoms, -NH-SO₂-alkyl of 1-6 carbon atoms, -SO₂-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl, or aroyl; as defined in Claim 1, the the process comprising the steps of:

a) converting a cyclopenta[b]indole compound of the formula:

$$R_2$$
 R_1
 R_4
 R_5

to an optionally substituted cyclopenta[b]indol-4-ylacetamide compound of the formula:

$$R_2$$
 H_2N
 R_1
 R_4
 R_5

b) reducing the optionally substituted cyclopenta[b]indol-4-ylacetamide of step a) to the corresponding optionally substituted cyclopenta[b]indol-4-yl-amine of the formula:

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$$R_1$$
 R_4
 R_5
 R_5
 R_4
 R_5

c) cyclizing the cyclopenta[b]indol-4-yl-amine of step b) to an optionally substituted diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:

14. (Currently amended) The process of Claim 13 further comprising the step of treating the diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:

$$R_2$$
 R_3
 NH
 R_4
 R_5

with an alkylating agent to produce a compound of the formula:

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$$R_2$$
 R_3
 R_4
 R_5

wherein R is alkyl of from 1 to 6 carbon atoms and R_1 , R_2 , R_3 , R_4 and R_5 are as defined in Claim 1 Claim 13.

15. (Currently amended) The process of Claim 13 further comprising the step of treating the diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:

with an acylating agent to produce a compound of the formula:

$$R_2$$
 R_3
 R_4
 R_5

wherein R is -C(O)R'; R' is alkyl of from 1 to 6 carbon atoms or aryl; and R_1 , R_2 , R_3 , R_4 and R_5 are as defined in Claim 1 Claim 13.

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16. (Currently amended) A process for preparing a compound of the formula:

$$R_2$$
 R_1
 R_4
 R_5

wherein R₁, R₂, [[R₃,]] R₄ and R₅ are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1 to 6 carbon atoms, -CN, -NH-SO₂-alkyl of 1-6 carbon atoms, -SO₂-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl;

R₃ is hydrogen, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms,

fluorinated alkyl of from 1 to 6 carbon atoms, -NH-SO₂-alkyl of 1-6 carbon atoms, -SO₂-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl, or aroyl; as defined in Claim 1, the the process comprising the steps of:

a) converting an optionally substituted cyclopenta[b]indole compound of the formula:

$$R_2$$
 R_1
 R_4
 R_5

to an optionally substituted nitrile compound of the formula:

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$$R_2$$
 R_1
 R_4
 R_5

b) reducing the optionally substituted nitrile compound of step a) to provide an optionally substituted amine compound of the formula:

$$R_2$$
 H_2N R_1 N R_4 R_5 ; and

c) cyclizing the amine compound of step b) to an optionally substituted diazabenzo[cd]cyclopenta[a]azulene compound of the formula:

17. (Currently amended) The process of Claim 13 16 further comprising the step of treating the diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:

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with an alkylating agent to produce a compound of the formula:

$$R_2$$
 R_3
 R_1
 R_4
 R_5

wherein R is alkyl of from 1 to 6 carbon atoms and R_1 , R_2 , R_3 , R_4 and R_5 are as defined in Claim 1 Claim 16.

18. (Currently amended) The process of Claim 13 16 further comprising the step of treating the diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:

with an acylating agent to produce a compound of the formula:

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$$R_2$$
 R_3
 R_4
 R_5

wherein R is -C(O)R'; R' is alkyl of from 1 to 6 carbon atoms or aryl; and R_1 , R_2 , R_3 , R_4 and R_5 are as defined in Claim 1 Claim 16.

19. (New) A process for preparing a compound of the formula:

$$R_2$$
 R_3
 R_4
 R_5

wherein R₁, R₂, R₄ and R₅ are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1 to 6 carbon atoms, -CN, -NH-SO₂-alkyl of 1-6 carbon atoms, -SO₂-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl;

R₃ is hydrogen, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms,

fluorinated alkyl of from 1 to 6 carbon atoms, -NH-SO₂-alkyl of 1-6 carbon atoms, -SO₂-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl, or aroyl; the process comprising the steps of:

cyclizing an optionally substituted amine compound of the formula:

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$$R_2$$
 R_1
 R_4
 R_5

to provide an optionally substituted diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:

wherein R_1 , R_2 , R_3 , R_4 and R_5 are defined as above.